

IN THE SPECIFICATION:

Please enter the following amendment to paragraph [0039]:

**[0039]** Fig. 4 is a flowchart depicting a sequence of operations for the selection of EMA constituent values by the microprocessor 170. The software/program instructions for the meter 100 enters an EMA calculation mode. A single data point is read (step 410) from stored data (step 420) such as data stored in the memory device 190. The stored data is preferably an array of values representing blood glucose measurements, and associated time code information for each measurement, and various other flags. Each data point is compared to criteria (step 430) for checking the data point for its suitability for use in a specific EMA calculation. These criteria can include values and flags corresponding to specific time frames corresponding to the desired EMAT, date information, calibration check information, post-prandial measurement, and specifically user-flagged values, among other ~~criteria~~criteria. Preferably, in order for the data point to be used as a constituent value for the EMA, the data point is within the EMAT, a pre-prandial measurement, not a calibration check, and not specifically flagged by the user. Once a data point is found that meets the criteria in step 430, the software/program instructions provide for storing the data point (step 440) to a corresponding buffer indicated at 450. The process is repeated (step 460) n times until n EMA constituent values are stored to the constituent value buffer 450, where n can be from 2 to 14, for example, and more preferably n is 3. When n values have been selected, the microprocessor 170 executing the software/program instructions calculates population parameters (step 470) of the constituent values within the constituent values buffer 450, and stores the population parameters (step 480) to a population parameters buffer indicated at 490. At a minimum, the population parameters buffer 490 contains the average of the constituent values 450. Population parameters buffer 490 can additionally contain a standard deviation of the constituent values 450 or another statistical parameter (e.g., scalar value, coefficient of variance, and the like) which represents the variation of the constituent values 450.